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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,640	11/13/2003	Ralph Peter Hackl	4764-32	1650

22442 7590 07/28/2006

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EXAMINER

FIORITO, JAMES

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,640

Applicant(s)

HACKL ET AL.

Examiner

James A. Fiorito

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 8, 14, 23 and 29-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-13, 15-22 and 24-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date #1-6. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of Claims 1-7, 9-13, 15-22 and 24-28 in the reply filed on 6/16/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 8, 14, 23, 29, 30-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/16/2006.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites "**at least most** of the precious metal content of the precious metal-containing material is dissolved", this limitation makes the claim unclear as to exactly how much of the precious metal is dissolved.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

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granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Ji '059.

Ji discloses a process for recovering a precious metal from a precious metal-containing material, comprising: providing a heap of the precious metal-containing material (Column 15, Lines 54-67); and passing a thiosulfate lixiviant and molecular oxygen through the heap to form a pregnant leach solution comprising dissolved precious metals, wherein the molecular oxygen is at a pressure greater than its ambient atmospheric pressure before introduction into the heap (Column 2 Lines 45-67). Ji teaches the leach slurry pH is preferably less than 9, the ammonia concentration is less than 0.05 M and the copper ion concentration is no more than 15 ppm (Column 2 Lines 45-67 – Column 3 Lines 1-3).

Claims 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Wan '359.

Wan discloses a process for recovering a precious metal from a carbonaceous precious metal-containing material, comprising: providing a refractory, carbonaceous precious metal-containing material (Abstract); and contacting the carbonaceous precious metal-containing material with a thiosulfate-containing lixiviant, wherein the lixiviant contains the blinding agent cupric tetrammine (Column 7 Lines 63-68). Wan

teaches that the blinding agent is at a concentration of less than 0.001 M (Column 7 Lines 63-68).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ji '059 in view of Elmore '526.

Ji does not expressly teach that the molecular oxygen is in the form of a gas and the thiosulfate lixiviant and molecular oxygen flow countercurrently through the heap, and the molecular oxygen is introduced under pressure into the heap by a network of conduits positioned in the base of the heap.

Elmore teaches a leaching process wherein the molecular oxygen is in the form of a gas and the thiosulfate lixiviant and molecular oxygen flow countercurrently through the heap, and the molecular oxygen is introduced under pressure into the heap by a network of conduits positioned in the base of the heap (Abstract). Ji and Elmore are analogous art because they are from the same field of endeavor, namely leaching processes that use oxygen.

At the time of invention it would have been obvious to person of ordinary skill in the art to form the process of Ji to include that the molecular oxygen is in the form of a gas and that the thiosulfate lixiviant and molecular oxygen flow countercurrently through

the heap, wherein the molecular oxygen is introduced under pressure into the heap by a network of conduits positioned in the base of the heap in view of the teaching of Elmore. The suggestion or motivation would have been to use an alternative means of adding the oxygen gas to the leach solution as required by Ji (Abstract).

Claims 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wan '359.

Wan teaches a process for recovering a precious metal from a precious metal-containing material, comprising: providing a particulate precious metal-containing material; contacting the precious metal-containing material with a thiosulfate lixiviant and a cement; after the contacting step, forming the precious metal-containing material into agglomerates, wherein the agglomerates comprise particles of the precious metal-containing material, thiosulfate lixiviant, and 5 lb/ton of cement; (d) forming the agglomerates into a heap; and (e) thereafter passing the thiosulfate lixiviant through the heap to form a pregnant leach solution in which at least most of the precious metal content of the precious metal-containing material is dissolved (Column 16 Lines 50-67). Wan further teaches that cupric tetrammine is included in the lixiviant (Column 7 Lines 62-68). The Thiosulfate leaching is conducted at an initial concentration of 0.2M ammonium thiosulfate, 0.1M free ammonia and 0.003M cupric ion (Column 16 Lines 50-67).

Wan does not expressly state that the cement is a calcium-containing material. However, it would have been obvious to a person of ordinary skill in the art to form the

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process of wan to include a cement containing calcium hydroxide, since calcium hydroxide is a well-known component of cement.

Claims 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerley '061.

Kerley teaches a process for recovering a precious metal from a precious metal-containing material, comprising: contacting a thiosulfate lixiviant with a precious metal-containing material to form a pregnant leach solution, the pregnant leach solution comprising a dissolved precious metal, thiosulfate, polythionate, and sulfate which is contacted with a small addition of lime to eliminate sulfate build up in the solution (Column 6 Lines 64-68 – Column 7 Lines 1-3).

Kerley does not disclose that the dissolved sulfate concentration in the pregnant leach solution is maintained to be no more than about 150 g/L, or that the amount of calcium is at least about 0.1 kg/tonne of precious metal-containing material. However, it would have been obvious to a person of ordinary skill in the art to maintain the sulfate concentration to be no more than about 150 g/L in order to prevent sulfate buildup as taught by Kerley. Further it would have been obvious to execute the process of Kerley by adding about 0.1 kg/tonne of calcium as the small addition of calcium taught by Kerley.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fiorito whose telephone number is (571)272-7426. The examiner can normally be reached on 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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